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14. ABSTRACT

Anti-access/area-denial (A2/AD) has been a key driver of discussion on the operational level of war for several years. In the use of this phrase, there are underlying assumptions that do not necessarily serve the goal of finding the best ways to operate and win wars in the future. This paper challenges the assumption that A2/AD is a new way of war. It then argues that A2/AD encourages symmetrical capabilities-based solutions at the expense of operational solutions. Finally, it challenges the underlying assumption that access has been lost to the extent the name applies. Then the paper draws conclusions concerning the usefulness of using the A2/AD lens for solving today's operational problems, and recommends steps toward answering the significant challenges that anti-access threats do pose.

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Anti-Access/Area Denial: Time To Ditch the Bumper Sticker?

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the
requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily
endorsed by the Naval War College or the Department of the Navy.

Signature: _____

20 May 2013

Contents

Abstract

Anti-access/area-denial (A2/AD) has been a key driver of discussion on the operational level of war for several years. In the use of this phrase, there are underlying assumptions that do not necessarily serve the goal of finding the best ways to operate and win wars in the future. This paper challenges the assumption that A2/AD is a new way of war. It then argues that A2/AD encourages symmetrical capabilities-based solutions at the expense of operational solutions. Finally, it challenges the underlying assumption that access has been lost to the extent the name applies. Then the paper draws conclusions concerning the usefulness of using the A2/AD lens for solving today's operational problems, and recommends steps toward answering the significant challenges that anti-access threats do pose.

Introduction

Anti-access/area-denial (A2/AD) has become the dominant framework for the conversation of current and future operational threats to the U.S. military. There is nothing incorrect about how this term describes potential future conflicts. There is risk, however, that its constant use may subtly affect the conversation in negative ways. Problems may arise from the hidden assumptions that this term carries with it. One Naval War College student stated in a paper, "In order to conduct successful military operations in the A2/AD environment, U.S. military leadership must acknowledge A2/AD as a new way of war."[1] This is an example of how the slogan A2/AD, while creating excellent fodder for commentary, may potentially lead us to overstatement and flawed decision-making.

The ability of the United States military to project power at the time and place of its choosing has been uncontested since the fall of the Soviet Union. Several nations, particularly China, are rapidly becoming capable of challenging the status quo. This fact certainly causes discomfort among decision-makers. As late as 1985, Deng Xiaoping had believed that China would be able to focus exclusively on domestic economic modernization for at least the coming fifty years.[2] However, that view later changed rapidly. "The revolution in air-delivered weapons dramatized by the United States in the 1991 Gulf War shattered Beijing's complacency. Time was no longer an ally."[3] The lesson learned by China was that the U.S. could threaten Chinese interests unless plans were changed drastically.

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[1] Christopher J. McCarthy, "Anti-Access/Area Denial: The Evolution of Modern Warfare," */Luce.nt/* (2010), p. 2, http://www.usnwc.edu/Lucent/OpenPdf.aspx?id=95&title=The Global System in Transition (accessed 11 May 2013).

[2] John Wilson Lewis and Xue Litai, "China's Search for a Modern Air Force," *International Security*, Vol. 24, No. 1 (Summer 1999), p. 77.

[3] Ibid., p. 77.

It is this spark which initiated the massive military modernization that has been in progress ever since. It is very natural for the uncertain rise of China to have a disquieting effect, and A2/AD has become a primary tool for stoking the unease caused by declining relative military power in the U.S.

It began in the late 1990's when the Office of Net Assessment conducted a series of war games resulting in what would eventually become the A2/AD view of future threats.[4] The Center for Strategic and Budgetary Assessment in 2003 defined A2/AD in this way: "If anti-access (A2) strategies aim to prevent US forces entry into a theater of operations, then area-denial (AD) operations aim to prevent their freedom of action in the narrow confines of the area under an enemy's direct control."[5] A2/AD is simply a framework through which to understand that China, and to lesser extents other potential threat nations, are catching up and using asymmetric capabilities to their advantage. The 2011 National Military Strategy states that, "States are developing anti-access and area-denial capabilities and strategies to constrain U.S. and international freedom of action. These states are rapidly acquiring technologies, such as missiles and autonomous and remotely-piloted platforms that challenge our ability to project power from the global commons and increase our operational risk."[6] These are absolutely developments that must be closely watched and responded to. The military landscape is changing. The question is whether the A2/AD framework helps arrive at the best solutions.

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[4] McKenzie, Kenneth, "Everything changes when the enemy sees over the horizon," *Armed Forces Journal,* Vol. 150 Issue 6 (January 2013): 8-30.

[5] Andrew F. Krepinevich et al., *"Meeting the Anti-Access and Area Denial Challenge,"* Center for Strategic and Budgetary Assessments, 2003: p. ii.

[6] Chairman of the Joint Chiefs of Staff, *National Military Strategy 2011*, p. 3, http://www.jcs.mil/content/files/2011-02/020811084800_2011_NMS_-_08_FEB_2011.pdf (accessed 27 April 2013).

The A2/AD framework has become a buzzword around which much public discussion of future military operations revolve. It plays directly to the lack of operational risk the U.S. military has faced since the end of the Cold War. Due to several assumptions underlying the A2/AD framework, anti-access/area-denial is not a beneficial tool for addressing present and future operational-level threats to American power projection capabilities.

The Historical Context

The anti-access/area denial framework tends to encourage the feeling that the operational problem is a new one. This can lead to insufficient focus on the operational art lessons of history. In an article about AirSea Battle, the current response to A2/AD challenges, General Schwartz and Admiral Greenert specifically say, "Anti-access and area-denial strategies are not new."[7] The problem is that the act of assigning a name to it, especially one that has become as ubiquitous as A2/AD, implies a departure from the normal. However, the assured global wartime access enjoyed by the U.S. over the last two decades is the historical oddity. Sun Tzu said that, "by inflicting damage, he can make it impossible for the enemy to draw near."[8] Sun Tzu may not have understood the technologies involved in modern warfare, but their purposes would be entirely familiar. Denying the entry of opposing combatants into a theater of operations has been a goal of commanders throughout history. A2/AD warfare is simply warfare, and may not deserve the fancy new name.

There are numerous examples of attempts to deny the enemy access to the theater of operations. When the German navy attempted to use U-boat attacks to interdict American

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[7] Norton A. Schwartz and Jonathan W. Greenert, "Air-Sea Battle." *The American Interest* (20 February 2012), http://www.the-american-interest.com/article.cfm?piece=1212 (accessed 10 May 2013).
[8] Sun Tzu, *The Art of War,* Chapter 6, Verse 3.

shipping in the North Atlantic during World War II, they were executing an anti-access strategy. American access to the theater was a significant problem for their war plans, and the submarine proved early that it would be a potent anti-access weapon. In its day, this was the high technology approach to the issue. During the Vietnam War, U.S. attempts to interdict the Ho Chi Minh trail, although equally unsuccessful, were an effort to deny the North Vietnamese access to the battlefields of South Vietnam.[9] Of course, successful anti-access efforts tend to leave little historical record because they deter an adversary from attacking or interfering in a local conflict in the first place. Going further back in time and technology, combatants can be seen attempting to deny access to the theater of operations by sending their armies forward. An example of this is the Gallipoli Campaign of World War I, when the British and French attempted to take Constantinople.[10] The ends were that the Turks denied the enemy access to the waters near their city. The means were the use of the army, sent forward to control the Dardanelles. The Turks could have achieved similar results through the use of ballistic missiles, had they been available. Methods and tactics in war have changed with technology, but the idea of keeping the enemy at arm's length has always been a sound operational approach.

Looking at a more recent slice of history, A2/AD is also not new because the means of executing this operational approach have changed only by degree. Much attention has been focused on China's development of the DF-21D anti-ship ballistic missile. Designed specifically to strike at the U.S. aircraft carrier threat, it puts American power projection at

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[9] Jacob Van Staaveren, *Interdiction in Southern Laos: 1960-1968* (Washington: Center for Air Force History, 1993) Chapter 1.
[10] Anthony Brandt, "What We Learned…From Gallipoli," *Military History* Vol. 29 Issue 6 (March 2013: 16.

risk from a maneuverable ballistic warhead at a range that exceeds 1,500km.[11] This is a

significant threat that greatly increases China's potential reach, but does not change the

nature of modern warfare. There have been weapons that would put our maritime assets at

risk, but they did not extend so far into the commons. Chinese anti-ship missiles previously

existed that could travel hundreds of kilometers. The threat has increased, and the risk with

it, but the change has only been incremental.

Other specific risks are new, but only if considering just the last two decades. The

vulnerability of U.S. bases in the Pacific is such a case. The latest in Chinese ballistic

missiles offers, "greater ranges, improved accuracy, and a wider variety of conventional

payloads, including unitary and submunition warheads."[12] This is an issue that must be dealt

with, but it is not a new issue. During the Cold War, American forward deployed forces

were constantly under threat. As Goure says, "It is time for the national security community

to get a grip on itself. The AA/AD threat is neither new nor all that daunting. The U.S.

military has already faced down the mother of all AA/AD threats. It was the Soviet military.

The Red Army was postured for the ultimate AA/AD operation, including a massive air and

missile assault -- employing chemical weapons -- on all our forward bases and using

hundreds of submarines and aircraft to sweep the seas of our ships."[13] While he potentially

undersells the danger in the modern threat, the larger point is that although technologies have

evolved, the U.S. has faced a more uncertain military landscape in the recent past. It

maintained the required posture through a combination of dispersal, threat defense,

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[11] Office of the Secretary of Defense, "ANNUAL REPORT TO CONGRESS, Military and Security Developments Involving the People's Republic of China 2012," p. 22, http://www.defense.gov/pubs/pdfs/2012_CMPR_Final.pdf (accessed) 27 April 2013.

[12] Department of Defense, *Military Power of the People's Republic of China 2009*, p. 34, http://defense.gov/pubs/pdfs/China_Military_Power_Report _2009.pdf (accessed 28 April 2013).

[13] Daniel Goure, "The Overblown Anti-Access, Area Denial Threat," *Lexington Institute*, October 23, 2009, http://www.lexingtoninstitute.org/the-overblown-anti-access-area-denial-threat (accessed 10 May 2013).

flexibility, and the assumption of a level of operational risk to which it has recently become unaccustomed. Simple measures such as hardening and planned tactical dispersals can give the force the survivability it needs, just as has been the case in the past.[14] The threat is real, but the A2/AD framework encourages the unreasonable assumption that the U.S. should always expect to have undisputed access everywhere with low risk.

The use of the phrase anti-access/area denial induces a potentially dangerous sense of having discovered some new truth about the future of warfare. Technology is diffusing, and operational planning must change accordingly. However, at the operational level of war, one risks losing sight of the fact that A2/AD has always existed. Munson and Finney say, "The unmatched capabilities of the U.S. military in recent years … have created a conceptual environment where the traditional concerns of operational art and strategy – that being how to balance significant risks to the force against the requirement to attain ends determined by political masters – have receded from the institutional memory and even imagination."[15] The risk that American forces will face in the next major conflict will be far greater than anything faced since the end of the Cold War. Perhaps part of the focus on A2/AD is because, in the words of Vego, "Today's Navy officer corps' knowledge and understanding of … military history is far from adequate."[16] History still applies, and the A2/AD framework does not help focus attention on the lessons that can be learned.

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[14] Sugio Takahashi, "Counter A2/AD in Japan-U.S. Defense Cooperation: Toward 'Allied Air-Sea Battle'," Project 2049, April 18, 2012, http://project2049.net/documents/counter_a2ad_defense_cooperation_takahashi.pdf (accessed 28 April 2013).

[15] Peter J. Munson and Nathan K. Finney "Why Operational Access Is No Revolution." *Rethinking Security Blog,* April 3, 2012, http://rethinkingsecurity.tumblr.com/post/20419719162/guest-post-why-operational-access-is-no-revolution (accessed 11 May 2013).

[16] Milan Vego, "Study War Much More," *United States Naval Institute Proceedings* Volume 139 Number 1 (January 2013): 58-63.

The Solution Space

The anti-access/area-denial framework encourages symmetrical capability-based solutions, to the detriment of operational solutions. The conversation around A2/AD focuses heavily on the technologies and weapon systems being developed by potential adversaries. There is a natural inclination to think that manpower and money will eventually be enough to reassert total technological dominance and total military access. Unfortunately, that is not necessarily the case. The proof is that the preponderance of decisions made appear to focus on technological responses.

The most widely discussed anti-access/area denial threat is the growth of China's conventional ballistic missile arsenal. These weapons are designed specifically to hold U.S. maritime forces and U.S. bases in the region at risk. It is difficult to accept that there will be even moderate risk to air and maritime forces in future conflict, when the U.S military has grown accustomed to global access with very low risk. For example, "During the run-up to the first Gulf War with Iraq, the U.S. Navy positioned half of its total aircraft carrier striking power in narrow seas, splitting it between the Red Sea and the Persian Gulf. If there was any conceivable threat, such a move would have constituted strategic Russian roulette."[17] The A2/AD framework and its focus on adversary capabilities may explain the mostly symmetrical response to this threat, which focuses on active missile defense. In 2010, the commander of U.S. Pacific Fleet, Admiral Walsh, stated, "Now we find the missile defense program as being something that's essential to our ability to operate freely."[18] In many circles, however, confidence in the technology is lacking. As of 2010, the U.S. Navy had not

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[17] Robert C. Rubel, "Talking About Sea Control," *Naval War College Review* Vol. 63 No. 4 (Autumn 2010): 38.
[18] Marshall Hoyler, "China's 'Antiaccess' Ballistic Missiles and U.S. Active Defense," *Naval War College Review* Vol. 63 No. 4 (Autumn 2010): 102.

publicized the results of any SM-3 test launches against targets employing countermeasures. As Hoyler states, "BMD (Ballistic Missile Defense) critics frequently cite countermeasures and decoys in explaining their skepticism. This means SM-3 developers have strong incentives to announce such tests."[19] There is also a large space and force advantage to the ballistic missile arsenal over ballistic missile defense. First, the attacker can launch from anywhere, whereas the defender must protect each capital ship and base individually, necessarily diffusing the anti-ballistic missile inventory.[20] Decoys are technologically simple, and obsolete missile stocks can even be launched as decoys. All of these methods are inexpensive, simple, and increase the required active missile defense expenditure significantly.[21] The unspoken conclusion to Admiral Walsh's earlier quote may have been "without risk." It does not appear that hugely expensive active missile defense programs will eliminate the risk anytime soon. Nevertheless, public conversation of A2/AD defense continues to focus on active missile defense, aided by the way in which the term frames the problem.

An asymmetrical response is likely to focus on operational measures over technological breakthroughs. An operational response may focus on those assets that are not vulnerable to A2/AD weapons. There has been much said about the Chinese submarine force as a potent aspect of an anti-access/area-denial strategy, and for good reason. This force has made considerable advances, including modern torpedoes and long-range anti-ship cruise missiles designed to defeat U.S. defenses.[22] However, the U.S. military also has submarines,

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[19] Marshall Hoyler, "China's 'Antiaccess' Ballistic Missiles and U.S. Active Defense," *Naval War College Review* Vol. 63 No. 4 (Autumn 2010): 92.
[20] Ibid., p. 85-86.
[21] Ibid., p. 91-92.
[22] Andrew Krepinevich, "Why AirSea Battle?" Center for Strategic and Budgetary Assessments, February 19, 2010, http://www.csbaonline.org/publications/2010/02/why-airsea-battle/, (accessed 5 May 2013): 23.

which are potentially the best asymmetric counter to a rising Chinese submarine capability. Submarines are ideal for denying the adversary area access and mobility just as the adversary is trying to do to the U.S. However, when the focus is on the A2/AD, the reaction tends to focus on symmetrically getting access back. Indeed, attack submarine quantities have not become a large priority, despite their lack of A2/AD vulnerability. In 2012, the Congressional Research Service stated, "The Navy's FY2013 30-year SSN procurement plan, if implemented, would not be sufficient to maintain a force of 48 SSNs consistently over the long run." The force would see a minimum of 43 boats and not reach 48 again until at least 2034.[23] Modern attack submarines represent an extreme capital investment. However, it is interesting to note that the asset in the U.S. military that is least vulnerable to anti-access weapons does not get prime attention as an asymmetric response. Future operational commanders may question that decision.

The A2/AD framework may tend to encourage symmetrical thinking and direct responses to A2/AD threats. Asymmetric responses are likely to be a large part of the ideal operational solution. A more comprehensive framework for discussion may be in order.

The Kill-Chain

The anti-access/area-denial framework carries the underlying assumption that access has been lost, potentially overstating the operational problem. Weapons that can significantly change the operational level of war always come with complex kill-chains. Unfortunately, the A2/AD conversation still tends to place less focus on the kill-chain that a

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[23] Ronald O'Rourke, "Navy Virginia (SSN-774) Class Attack Submarine Procurement: Background and Issues for Congress," Congressional Research Service, March 1, 2012: 8.

potential adversary must execute. Consequently, it also places less focus on those things that can be done to disrupt it. While active missile defense systems receive much of the attention and investment, counter-targeting and counter-seeker strategies are viable and typically less costly.

While the development of anti-access capabilities is technologically impressive, there are other considerations. For example, the impact of the DF-21D anti-ship ballistic missile is far from settled. As Admiral Roughead stated in 2011, "You have to look at the nature of being able to first locate, then target, and then engage a moving sea-borne target at range … I really do think that it is not the game-changer people have played it up to be."[24] The first step is the detection of a potential target. China is certainly putting an emphasis on this area. According to a Congressional Research Service report, these systems include, "Land-based over-the-horizon backscatter (OTH-B) radars, land-based over-the-horizon surface wave (OTH-SW) radars, electro-optical satellites, radar satellites, and seabed sonar networks."[25] These types of systems are exactly what are required to detect maritime targets at the ranges necessary for employment of anti-ship ballistic missiles (ASBM). However, the same report quotes a press report stating that each method of target acquisition appears to be "vulnerable in its own way."[26] One method of complicating targeting is by controlling emissions. This requires a significant amount of dedicated training, but includes the added benefit of making target discrimination increasingly difficult. Depending on the situation, an adversary is unlikely to expend an expensive ballistic missile without some degree of confidence in the identity of the target. This is difficult to achieve with radar, satellite, or sonar data alone.

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[24] Ronald O'Rourke, "China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress," Congressional Research Service, April 26, 2013: 70.
[25] Ibid., p. 40.
[26] Ibid., p. 69.

There is also the option of using deceptive emitters.[27] This would give the enemy an entirely different problem: too many targets. Tangredi states that, "During the Cold War, ... fleets used FDGs (Fleet Deception Groups) to mask the at-sea operations of carrier battle and amphibious ready groups by equipping a variety of platforms to mimic the transmissions and radar signatures of high-value units, such as the carriers."[28] In this case, they would expend significant resources if they employed an ASBM at every potential target. Operating effectively in ways that could deny targeting requires the operational commander to employ a force that is trained and postured appropriately. While requiring foresight and knowledge of commander's intent at every level, it can significantly reduce the threat.

The other major method for defeating the adversary's kill-chain is to inhibit target acquisition by the weapon itself. This is a non-trivial task when targeting anything other than fixed infrastructure. Anything that is moving, movable, or whose precise location is not known requires acquisition by a seeker. Seekers can be defeated with some degree of reliability given the timely use of countermeasures. Obscurants are one form of countermeasures that have been long used in the visual spectrum to influence the enemy. During World War Two, a critical element of survivability for surface combatants were the dense clouds of smoke they could produce to keep the enemy from pinpointing their location.[29] It was simple and effective. The range of potential modern-day frequency obscuration covers visual, infrared, and radio frequency.[30] Culora says, "Thoughtful obscurant employment will significantly reduce the risk to surface ships from missile

[27] Ronald O'Rourke, "China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress," Congressional Research Service, April 26, 2013: 64.

[28] Sam J. Tangredi, "No Game Changer for China," *U.S. Naval Institute Proceedings* Vol. 136 Issue 2 (February 2010): 24-29.

[29] Thomas J. Culora, "The Strategic Implications of Obscurants: History and the Future," *Naval War College Review* Vol. 63 No. 3 (Summer 2010): 73.

[30] Scott Tate, "Make Smoke!," *U.S. Naval Institute Proceedings* Vol. 137 Issue 6 (June 2011): 58-63.

strikes."[31] Thoughtful means that it must be a standard doctrinal response. The response

must be trained to and pushed by the operational commander. Cost is another reason to add

passive defenses to U.S. efforts to defeat the kill-chain. "The Chinese have based their entire

antiaccess strategy on developing systems that are less expensive to produce and operate than

the U.S. expeditionary forces they are designed to counter."[32] The use of low cost obscurants

begins to change that balance of cost, as ballistic missiles are only cheap when compared to

ballistic missile defense assets.   Because countermeasures are inexpensive and potentially

very effective, they are an ideal deterrent.[33] Because they are inexpensive to acquire and

operate, they also do not have a natural constituency.[34] Nevertheless, the use of passive

defenses would likely be a valuable tool for the operational commander.

Long-range anti-access weapons represent a significant threat to U.S. land and sea-

based forces. They are also expensive and completing all of the links in the kill-chain is

challenging in wartime. At long range, defense becomes easier if forces are properly trained

and arrayed. The A2/AD framework does not help focus the discussion on ways that the

adversary's kill-chain may be passively attacked.

Counter-Argument

Some make the case that the use of the A2/AD framework is a critical tool for looking

at the operational problem posed by China's military buildup because the U.S must send the

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[31] Thomas J. Culora, "The Strategic Implications of Obscurants: History and the Future," *Naval War College Review* Vol. 63 No. 3 (Summer 2010): 74.
[32] Ibid., p. 77.
[33] Ibid., pp. 79-80.
[34] Ibid., pp. 75-76

message to its allies that it will maintain access in wartime. Admiral Greenert and General Schwartz jointly stated, "If America appears unable or unwilling to counter an adversary's anti-access military capabilities, its friends and allies may find U.S. security assurances less credible, leading some of them to seek accommodation with aggressors or alternate means of self-defense."[35] A2/AD can serve to focus the energy and resources of the U.S. and its allies to counter these specific threats. First, this view overlooks the breadth of China's military modernization. They are making upgrades on the full range of capabilities, many of which are outside of the anti-access framework. China is building a modern military. That this may affect the ability of the U.S. military to access the global commons during a conflict is not a strategy; it is the entire point of building a modern military. Second, Schwartz and Greenert themselves acknowledge, "The concept could tempt military leaders to market every new program or initiative under the banner of Air-Sea Battle." They expect that the logical process of excluding those ideas that do not fit can overcome this.[36] This seems somewhat optimistic. Third, as the most potent A2/AD threat, China does not see its military modernization in anti-access terms. A 2007 Rand study could not find a single use of an equivalent term. They talk about A2/AD only in reference to the fact that the U.S. is talking about A2/AD. The term often seen in Chinese military writings is "using inferiority to defeat superiority"[37] This is an asymmetric approach that the U.S. would be wise to emulate.

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[35] Norton A. Schwartz and Jonathan W. Greenert, "Air-Sea Battle." *The American Interest* (20 February 2012), http://www.the-american-interest.com/article.cfm?piece=1212 (accessed 10 May 2013).

[36] Ibid.

[37] Roger Cliff, "Anti-Access Measures in Chinese Defense Strategy," Rand Corporation, Testimony presented before the U.S. China Economic and Security Review Commission on January 27, 2011, http://www.rand.org/pubs/testimonies/CT354.html (accessed 16 May 2013): p. 2.

Conclusions

A2/AD threats do not add up to a new way of war, but a new set of challenges to be overcome with proper planning and an understanding that there will be risk to gaining access and freedom of action in warfare. The use of the buzzword "A2/AD" serves to obscure the operational problem in significant ways. It nudges the conversation away from the history of operational art, where there are useful parallels, because A2/AD sounds like a new problem. Second, it encourages a focus on capabilities, instead of on asymmetrical operational opportunities. Finally, the framework of A2/AD encourages the assumption that access has been lost, where the kill-chain is a potentially fragile thing. The U.S. military and political leadership may make better decisions more frequently without the ubiquitous A2/AD as a centerpiece for operational thought.

Recommendations

First, the concept of anti-access/area-denial should be phased out in official literature in favor of a more holistic description of the specific challenges that face the operational commander. Second, there should be an increased doctrinal reliance on the concept of decentralized execution even while command and control networks allow the operational commander a better view of the overall picture. When facing an increasingly lethal threat, a tendency is to control risk by further centralizing control. Air-Sea Battle, as a response to anti-access threats, has the potential to go in that direction. Third, the U.S. military should be willing to accept increasing levels of risk in future major combat. Having this discussion in public could both better prepare the American people and deter potential adversaries that

may see the U.S. as risk averse. Finally, when planning future expenditures, the U.S. military should begin with the inexpensive, but effective items that have no constituency and currently get crowded out by more costly and influential programs. That is how the operational commander would best get the capabilities he needs.

BIBLIOGRAPHY

Brandt, Anthony. "What We Learned…From Gallipoli." *Military History* Vol. 29 Issue 6 (March 2013): 16.

Chairman of the Joint Chiefs of Staff. *The National Military Strategy of the United States of America 2011* (8 February 2011), p. 3, http://www.jcs.mil/content/files/2011-02/020811084800_2011_NMS_-_08_FEB_2011.pdf (accessed 27 April, 2013).

Cliff, Roger. "Anti-Access Measures in Chinese Defense Strategy." Rand Corporation. Testimony presented before the U.S. China Economic and Security Review Commission on January 27, 2011. http://www.rand.org/pubs/testimonies/CT354.html (accessed 16 May 2013).

Culora, Thomas J. "The Strategic Implications of Obscurants: History and the Future." *Naval War College Review* Vol. 63 No. 3 (Summer 2010): p. 73-84.

Department of Defense. "Military Power of the People's Republic of China 2009." Washington, D.C., 2009, http://defense.gov/pubs/pdfs/China_Military_Power_Report _2009.pdf (accessed 28 April 2013).

Eaglen, Mackenzie and Rodeback, Jon. "Submarine Arms Race in the Pacific: The Chinese Challenge to U.S. Undersea Supremacy." The Heritage Foundation. 2 February 2010. http://www.heritage.org/research/reports/2010/02/submarine-arms-race-in-the-pacific-the-chinese-challenge-to-us-undersea-supremacy (accessed 10 May 2013).

Erickson, Andrew. "Chinese ASBM Development: Knows and Unknowns." The Jamestown Foundation. *China Brief* Volume 9 Issue 13 (June 24, 2009): 4-8. http://www.jamestown.org/uploads/media/cb_009_15.pdf (accessed 10 May 2013).

Friedberg, Aaron L. "Bucking Beijing: An Alternative U.S. China Policy." *Foreign Affairs* Vol. 91, No. 5 (September/October 2012): 48-58.

Goure, Daniel. "The Overblown Anti-access, Area Denial Threat." Lexington Institute, 23 October 2009, http://www.lexingtoninstitute.org/the-overblown-anti-access-area-denial-threat (accessed 10 May 2013).

Greenert, Jonathan W. "Projecting Power, Assuring Access." May 10, 2012, http://cno.navylive.dodlive.mil/2012/05/10/projecting-power-assuring-access/ (accessed 10 May 2013).

Halloran, Richard. "AirSea Battle." *Air Force Magazine.com* Vol. 93 No. 8 (August 2010), http://www.airforcemag.com/MagazineArchive/Pages/2010/August%202010/0810battle.aspx (accessed 10 May 2013).

Hoyler, Marshall. "China's 'Antiaccess' Ballistic Missiles and U.S. Active Defense." *Naval War College Review* Vol. 63 No. 4 (Autumn 2010): 84-105.

Krepinevich, Andrew F. et al. "Meeting the Anti-Access and Area Denial Challenge." Center for Strategic and Budgetary Assessments, 2003.

Krepinevich, Andrew. "Why AirSea Battle?" Center for Strategic and Budgetary Assessments. 19 February 2010, http://www.csbaonline.org/publications/2010/02/why-airsea-battle/ (accessed 5 May 2013).

Lewis, John Wilson and Xue Litai. "China's Search for a Modern Air Force." *International Security* Vol. 24 No. 1 (Summer 1999): 64-94.

McCarthy, Christopher J. "Anti-Access/Area Denial: The Evolution of Modern Warfare." */Luce.nt/* (2010), http://www.usnwc.edu/Lucent/OpenPdf.aspx?id=95&title=The Global System in Transition (accessed 11 May 2013).

McKenzie, Kenneth. "Everything changes when the enemy sees over the horizon." *Armed Forces Journal* Vol.150 Issue 6 (January 2013): 8-30.

Munson, Peter J. and Finney, Nathan K. "Why Operational Access Is No Revolution." *Rethinking Security Blog* (April 3, 2012). http://rethinkingsecurity.tumblr.com/post/20419719162/guest-post-why-operational-access-is-no-revolution (accessed 11 May 2013)

Office of the Secretary of Defense. "ANNUAL REPORT TO CONGRESS, Military and Security Developments Involving the People's Republic of China 2012." http://www.defense.gov/pubs/pdfs/2012_CMPR_Final.pdf (accessed 27 April 2013).

O'Rourke, Ronald. "Navy Virginia (SSN-774) Class Attack Submarine Procurement: Background and Issues for Congress." Congressional Research Service, March 1, 2012.

O'Rourke, Ronald. "China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress." Congressional Research Service, April 26, 2013.

People's Republic of China. "The Diversified Employment of China's Armed Forces." 16 April 2013. http://news.xinhuanet.com/english/china/2013-04/16/c_132312681.htm (accessed 10 May 2013).

Rubel, Robert C. "Talking About Sea Control." *Naval War College Review* Vol. 63
       No. 4 (Autumn 2010): 38-47.

Schwartz, Norton A., and Greenert, Jonathan W. "Air-Sea Battle." *The American Interest.* 20
       February 2012, http://www.the-american-interest.com/article.cfm?piece=1212
       (accessed 10 May 2013).

Takahashi, Sugio. "Counter A2/AD in Japan-U.S. Defense Cooperation: Toward 'Allied Air-
       Sea Battle.'" *Project 2049*.
       http://project2049.net/documents/counter_a2ad_defense_cooperation_takahashi.pdf
       (accessed 28 April 2013).

Tangredi, Sam J. "No Game Changer for China." *U.S. Naval Institute Proceedings* Vol. 136
       Issue 2 (February 2010): 24-29.

Tate, Scott. "Make Smoke!" *U.S. Naval Institute Proceedings* Vol. 137 Issue 6 (June 2011):
       58-63.

Thompson, Loren B. "China's New "Carrier-Killing" Missile Is Overrated." Lexington
       Institute, 9 August 2010. http://www.lexingtoninstitute.org/chinas-new-carrier-
       killing-missile-is-overrated (accessed 10 May 2013).

Van Staaveren, Jacob. *Interdiction in Southern Laos: 1960-1968* (Washington: Center for Air
Force History, 1993).

Vego, Milan. "Study War Much More." *United States Naval Institute Proceedings* Vol. 139
       No. 1 (January 2013): 58-63.

Vego, Milan. *Joint Operational Warfare Theory and Practice* (Newport, RI: U.S. Naval War
       College, 2009).